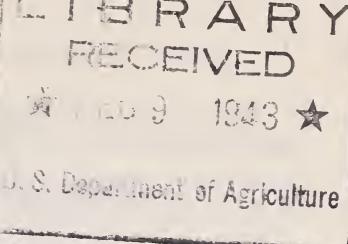


## **Historic, Archive Document**

**Do not assume content reflects current scientific knowledge, policies, or practices.**





## REPORT OF THE CHIEF OF THE BUREAU OF HOME ECONOMICS, 1942

UNITED STATES DEPARTMENT OF AGRICULTURE,  
AGRICULTURAL RESEARCH ADMINISTRATION,  
BUREAU OF HOME ECONOMICS,  
Washington, D. C., September 15, 1942.

Hon. CLAUDE R. WICKARD,  
*Secretary of Agriculture.*

DEAR MR. SECRETARY: I submit herewith the report of the Bureau of Home Economics for the fiscal year ended June 30, 1942.

LOUISE STANLEY, *Chief.*

### HOME ECONOMICS IN THE WAR

Homemakers in this country are facing the hard fact that for the duration they must live on the home front with much less than they had before. Families of our country have had to make many adjustments in living habits and use of money. Many more adjustments lie ahead, for taxation problems, limitation of supplies, and other economic developments are bound to have far-reaching repercussions on what we have at home and how it is used.

Already, manufacture of household equipment has practically ceased for the duration, in order that the metals and the factories may handle war jobs. Supplies of wool for civilian use are curtailed and uncertain; consumption of silk and some synthetic fibers is confined to military needs; use of certain kinds of cotton is restricted. Besides the decrease in market supplies, the expanding use of new fibers about which little is known, and the changes in fabric quality, living costs are higher; and clothing and household textile requirements have changed in many families where living habits and occupations have been altered. Our food supply, likewise, must stretch to meet increased needs of our fighters and workers in industry, and we must share our supplies with allied nations.

The Bureau of Home Economics is focusing its efforts on providing scientific aid in meeting these developments. As the Department's agency for conducting investigations on use of food, clothing, and other family supplies and on use of family income, the Bureau is receiving an increasing number of requests for information on wartime problems. To help homemakers in their wartime living adjustments, the Bureau is making available practical, tested information. In addition, the Bureau is carrying on many research projects to obtain information which agencies within and without the Department require in formulating policies and carrying out programs furthering the war goals.

The following brief summaries cover some of the more important accomplishments of the year.

### FAMILY SPENDING AND SAVING IN WARTIME

Providing war agencies with figures on spending and saving was a major task during the year. Requested information was given on sewing machines and other household equipment; rubber boots and other clothing articles; and consumption by income groups and by region of such foods as sugar, fats, oils, canned fruits, and canned vegetables.

In late 1941 it became apparent that the war's effects on income distribution and market offerings would soon greatly change spending and saving patterns. Funds to supplement the Bureau's resources were granted for an inquiry into the incomes, expenditures, and savings of a representative sample of rural families to show their living situation in 1941 and the first quarter of 1942. This survey of changes in rural living was paralleled by an urban survey undertaken by the Bureau of Labor Statistics of the United States Department of Labor.

The Bureau of Home Economics gathered its data in 45 counties in April and May 1942, and in June preliminary figures relating to the most urgently needed items were placed in the hands of the Government agencies most concerned. The sampling showed significant changes in the spending of rural families since 1935-36, when the last Nation-wide survey was made. In 1941 farm families put more than twice as much into savings as in the earlier period. They reduced debts, bought defense bonds and stamps, and made other investments. Their outlays for living increased by scarcely a third, although incomes averaged almost 50 percent higher.

Figures for the 12-month period of 1941 and those for the first 3 months of 1942 could be compared only in certain respects because incomes of many rural families are highly seasonal. Both farm and rural nonfarm families spent relatively less for all living in the first quarter of 1942 than in the year of 1941, although retail prices were rising steadily. Food expenditures were higher because food prices had gone up and these families had to buy more, as there are fewer home-grown products available in winter. Expenditures for clothing were smaller, perhaps reflecting seasonal buying.

From this study are emerging detailed facts regarding family spending during two periods. These are of great importance when decisions must be made regarding priorities, allocations, or rationing of materials that, directly or indirectly, affect levels of living. The study is providing figures needed by the War Production Board, on the rate of replacement of certain household equipment and clothing.

### HELP IN LIVING ADJUSTMENTS

More than usual effort during the year went into preparation of material of use to groups that help families to make adjustments in living. Two reports analyzing the economic impact of the world crisis on rural families were released, one in the autumn of 1941 and the other in the spring of 1942. Response to this service on the part of extension workers, rural teachers, and others indicated that it met a real need. In cooperation with other Federal agencies, a folder,

Be a Victory Planner in Your Home, was issued. To aid home economists in making use of census information on home living, a handbook on the 1940 data was prepared.

### THE NATION'S FOOD

The Nation used more of high nutritive value foods per capita in 1940-41 than in 1936: 12 to 14 percent more fresh vegetables; 5 to 8 percent more canned vegetables; 30 to 40 percent more citrus fruit; 10 to 15 percent more of other fruit; 8 to 10 percent more meat and eggs. The increase in much-needed dairy products was not so encouraging; it was less than 5 percent.

In considering average figures such as those given above, we should not lose sight of the fact of unequal distribution of food, a peacetime problem complicated and accentuated by the war situation. The average figures conceal the fact that many families in every population group have diets containing so little of such foods as to be seriously deficient in one or more nutrients.

To help families spend their food money wisely or use home-produced foods to best advantage, the Bureau revised its well-known plans for adequate diets at low, moderate, and liberal-cost levels. This revision was a contribution to the national campaign launched following the National Research Council's 1941 dietary recommendations. The new marketing lists translate the scientifically stated recommendations into the people's language of quarts of milk and pounds of bread, meat, vegetables, and fruit. By combining the amounts suggested for persons of different age and activity, any homemaker can tailor-make for her family a basic food order. This food order can then be put into specific terms of foods locally available and of family food tastes. Five basic plans have been published, and added modifications are being made. One or more of these diet plans is suitable for each type of farming area. The plans also take into account food habits of groups with different cultural backgrounds.

In setting goals for agriculture in the past year, the Department considered nutritional needs as well as market requirements. Food specialists of the Bureau cooperated with commodity committees in the Department in work on these problems. The Bureau broadened its study of the relative economy of various commodities as sources of nutrients to show nutritive values for each unit of land and for each unit of farm and retail cost. How recent trends in food consumption affect nutrition was also studied, and the relative importance of various foods or groups of foods as sources of nutrients. This work is providing background information pointing to ways and means of dealing with possible food shortages. Results are being brought to the attention of the Nation's Food Requirements Committee, through departmental committees and also upon request through the National Research Council's Food and Nutrition Board and the Office of Defense Health and Welfare Services.

### NUTRITIVE VALUE OF FOODS

If the greatest number of people are to be adequately fed, it is necessary to know the nutritive values of all our foods and particularly what nutrients are contained in widely used foods. It is neces-

sary to trace the presence of vitamins and other nutrients in foods and the effect of various methods of cookery and preservation, in order to learn the actual nutritive value of the foods as they are eaten and best ways to conserve it.

For the aid of research workers, the Bureau published a complete compilation of the reported research of the world up to January 1941, showing vitamin A, thiamine, riboflavin, ascorbic acid, and vitamin D values in terms of absolute weights or international units of foods in relation to processing and other variants. The same material was arranged in tables in terms of common measures (100-gram, pound, and average household servings) and published for use of dietitians. Results of vitamin research were further stepped down to popular compact form in a folder, *Vitamins From Farm to You*, for use in homes and schools of the country.

Adequate amounts of vitamin A in the diet are necessary for the eyes to adjust satisfactorily to light changes. Hence, the war situation with its black-outs, night maneuvers, and defense activities made it advisable to investigate more fully the human need for this vitamin, the variations in vitamin A requirement under different conditions, and the food sources of this nutrient.

In view of a possible wartime shortage of fish-liver oils—the most concentrated sources of vitamin A—the Bureau stepped up its studies on carotene (mother substance of vitamin A) from different plant materials as a source of this vitamin. Powdered, dried alfalfa juice was used in feeding tests conducted with a volunteer diet squad. This product was selected because research had shown that its carotene value was retained to a high degree during drying. As a measure of the adequacy of the amount of alfalfa juice fed in the tests, adaptation of the eyes to darkness was tested, and the vitamin A content of the blood was checked. The physiological studies showed that 30 percent more carotene from this source is required by the human adult to meet vitamin A requirements than when vitamin A from fish-liver oil is used.

The ascorbic-acid content of tomatoes grown on soils containing various levels of nitrogen, phosphorus, and potassium was investigated. These tomatoes were grown by the Bureau of Plant Industry under known cultural conditions. The results showed that composition of the fertilizer did not affect ascorbic-acid content of the tomatoes.

The ascorbic acid content of several varieties of apples grown at the horticultural station of the Bureau of Plant Industry and stored under various conditions was investigated. It was found that the greatest amount of ascorbic acid of apples is concentrated in the peel. The tests showed the desirability of holding apples at low temperatures, since the ascorbic acid content is best retained at such temperatures. The higher the temperature, the greater was the destruction of this vitamin. Also the longer the storage, the greater the destruction of ascorbic acid.

The thiamine, riboflavin, ascorbic acid, and  $\beta$ -carotene values of 75 foods commonly used in dietaries in this country were determined. Ascorbic acid and thiamine losses during processing were studied in 39 foodstuffs.

Results of these investigations on vitamin losses in food preparation were applied in recommendations of home cooking methods to maintain nutritive value. Similar work is planned using quantities and methods applicable to Army and civilian group feeding.

### DEHYDRATED FOODS

A standard test was needed to evaluate the quality of dried eggs purchased by the Agricultural Marketing Administration for shipment abroad. In cooperation with representatives of other bureaus, the Bureau of Home Economics developed a method of evaluating flavor, which has since been used in testing all dried eggs submitted by the industry for purchase under lend-lease. Samples of dried whole eggs from 58 plants in the United States were studied in checking quality. The laboratory worked out methods of testing cooking quality of the dried eggs in scrambled form, in pop-overs, cakes, custards, and salad dressings. By these methods, changes in quality resulting from storage under different temperature conditions are being determined. Results from these studies are being used in measuring quality of packaged dried eggs now distributed for home use on the British ration. As part of the joint effort, results from the research on cooking quality are being correlated with bacteriological and chemical studies made by the Bureau of Chemistry and Engineering.

Storage tests still in progress have thus far showed that a storage temperature of about 110° F. made dried eggs unfit for scrambling in approximately a week. However, samples retained quality for at least 3 months if held at temperatures of 75° or below. In general the lower the storage temperature the longer the dried egg retains high quality.

On the basis of the egg researches, it was recommended that dried whole eggs from selected plants be packaged and put on the ration for distribution in England.

Metabolism studies showed that dried egg yolk was as efficient a source of iron in diets of infants as fresh eggs.

The Bureau participated in the cooperative project initiated by the Agricultural Research Administration on dehydration of meat. More than 50 samples of dried meat were cooked and judged for edible quality when served plain or in stews or other low-cost meat dishes. This work continues, and tests are being run not only on freshly dried samples but on samples stored for varying periods under specified conditions. Recipes are being developed for the use of dried meats. In this project, the Bureau is also responsible for studying effect of dehydration on mineral and vitamin content of meat.

A great variety of commercially dehydrated foods—vegetables, fruits, and dried food mixtures for soups—were tested for palatability, to formulate a basis for specifications for food purchased by the Agricultural Marketing Administration for various agencies. Most of these products were tested also for one or more vitamins, as, for example, tests of ascorbic acid in tomato and citrus fruit concentrates. Retaining the ascorbic acid is particularly important in view of the need both here and abroad for foods rich in this vitamin. Tests for ascorbic acid, thiamine, and vitamin A value were made in commercial samples of dried foods about which detailed informa-

tion was available. In commercial products tested, both quality and food value were found variable.

To aid homemakers in preserving food, several types of home-made food driers were built and tested. Particular attention was given to kerosene and electrically heated driers, and designs were modified to remedy uneven heat distribution and air circulation. So changed, the driers were more efficient and their products more satisfactory. Some products were tested by oven and open-air drying.

Studies of home drying of foods at the laboratories were made, using sweetpotatoes, carrots, beets, turnip greens, snap beans, mushrooms, apples, cherries, and blackberries. Mineral and vitamin tests were made on the vegetables to find out what losses occurred in pre-heating or in drying, storing, or cooking the final product—this in order to aid homemakers to keep as much of the “good” as possible in foods dried at home. Some mineral loss was found in dried foods due to leaching in the preliminary cooking. In general, tests to date indicate that there may be a fair retention of vitamins in dried vegetables. Carotene (provitamin A) and ascorbic acid are the most unstable. Adequate precooking is essential in retaining carotene, ascorbic acid, and cooking quality of all vegetables tested. Preliminary treatment and subsequent storage are as important as actual drying in maintaining vitamin content. Storage should be in airtight containers and at low temperatures.

#### OTHER FOOD-CONSERVATION MEASURES

Since none of the food produced more abundantly in Victory gardens should go to waste, emphasis on home canning has been strengthened. The situation is complicated by limitations in the supplies of sugar, rubber, and metal.

At the request of the War Production Board, the Bureau of Home Economics and the Bureau of Labor Statistics surveyed family plans for 1942 canning, as an indicator of the extent to which rubber and metal should be allocated for jar rings and tops for home use. This survey of representative rural and urban families in June 1942 indicated that home canners planned to put up 50 percent more food than in recent peacetime—3,887,000,000 jars by the end of the year. Nearly half of the jars to be used—1,926,000,000—needed new loose rubber rings, and more than 40 percent needed new lids for the two-piece metal-top type of jar. Ninety-eight percent of farm families and 93 percent of nonfarming rural families expected to put up home-canned supplies. Farm families planned for about 250 jars on an average; rural nonfarm families, 200; city families with canning programs, 111.

The Bureau was asked to test gaskets for home canning, prepared by 12 companies, to determine whether the usual content of crude rubber could be decreased. A preliminary study showed the importance of the total rubber hydrocarbon in the gasket and the quality of reclaimed rubber used. A check of the sealing qualities of the gaskets and of the effect of processing showed that 70 percent of the lots tested failed to make seals. Additional studies of gaskets made of reclaimed rubber prepared by other methods are in progress. From the results of these, the War Production Board will prepare emergency specifications as a basis for issuing rubber for manufacture

of gaskets for home canning next year. Physical specifications will also be prepared for checking these gaskets.

Household-equipment specialists made a study of sharp freezers and freezer cabinets for farm-home use. The first cabinet tested was one of 20-cubic-foot capacity, designed and manufactured according to specifications set up by the Rural Electrification Administration. This cabinet was tested for over-all efficiency, freezing speed, capacity, freezing and storage temperatures, operation cost, and convenience in use. Two commercially manufactured sharp freezers are also under test, and from information thus far obtained one manufacturer has made changes in the design.

To further the Department's Victory Garden, Food-for-Freedom, and Victory Food Special programs, the Bureau has prepared educational material informing homemakers, by spoken and written word and by picture story, how to get best use from current food supplies. These educational materials emphasize that wise use of supply means increased use of fresh food locally produced in order to lighten transportation loads and to conserve processed food for shipment to our fighters and allies; and that wise use also means a step-up in home drying of food, brining, pickling, freezing, storing, canning, and preserving. As an example of graphic demonstration material, sets of picture charts were prepared, showing how to get the good from food in cooking and other preparation and how to fight food waste in home storage. These charts, 10 in each set, have been printed and made available throughout the country at low cost.

To help consumers use available meat supplies effectively, a bulletin, Meat for Thrifty Meals, was issued. This stressed wider use of the cheaper cuts and meat organs high in food value and suggested ways to extend meat flavor by combination with cereal products, vegetables, and other less expensive foods. It likewise offered homemakers directions for modern meat cookery, using controlled temperatures to hold down shrinkage and avoid waste in the cooked meat—the result of years of research at the Bureau's laboratories.

#### WORK CLOTHES FOR WOMEN

Functional work clothes, designed for the job and for the safety and comfort of the wearer, are a factor in speeding work of women in factories and also on farms and in homes. Following up its introduction of specially designed functional garments for women workers in the previous year, the Bureau added new designs, and clothing specialists helped some war factories to adapt Federal designs to provide official uniforms for their women workers. Through cooperation of pattern manufacturers, 16 of these work-clothes designs became available in commercial patterns. In addition, about 75 clothing manufacturers were reported to be making women's work clothes either as exact copies or as adaptations of the Bureau's designs.

The clothing specialists accompanied each design with suggestions for constructing the garment of durable, easy-to-launder fabrics—thereby promoting fabric conservation—since the functional work clothes frequently replace clothing of unsuitable material unadapted to hard wear.

### COTTON-STOCKING RESEARCH

When the silk shortage came, the Bureau had ready about 200 designs for cotton hosiery, which the trade could use. The bottleneck in cotton for the sheerer hosiery is not want of designs but of spindles for making the yarn. Meantime, because of the small amount of fine, combed, two-ply cotton yarn available for this type of hosiery, the Bureau has worked toward production of stockings made of single combed yarns from medium-length staple cottons. Improving the strength, elastic properties, and appearance of cotton hose knit from these yarns is the goal of the experiments now in progress. New chemical methods of treating cotton yarns to increase their strength and smoothness are being tested, and in other tests high twist is applied to the single yarns for strength.

### CONSERVATION OF CLOTHES AND FABRICS

The tremendous increase in demands upon textile mills to produce fabrics for war has made it clear that we must strive to get maximum service from all fabrics and clothing.

To meet the coming needs for teaching materials, educational material was issued to show best methods of mending, remodeling, and caring for garments. Emphasis is placed on mending men's suits and overcoats, on relining women's coats, on remodeling men's clothing into serviceable garments for women and children, and on renovating women's and girls' outfits to make them wearable and up to date.

The Bureau of Home Economics undertook laboratory tests in cooperation with the National Bureau of Standards and issued directions and picture charts showing ways to care for and repair rubber articles. Heat, sunlight, oil and grease, ordinary cleaning fluids, and copper were cited as destructive to rubber goods.

### USE OF SUBSTITUTE FIBERS

Disappearance of some textile fibers from the civilian market and reduction of the amount of others, such as wool, have caused replacement fibers to gain in use in clothing and household fabrics. Since little was known about use-value of the substitute fibers, the Bureau's laboratories investigated effects that some of them have upon the serviceability and fabric properties of certain textiles.

Three blanket fabrics were tested during service in a hospital to compare the effects of blending good-quality new wool with poor-quality new wool, with reused wool, or with mohair. Both reused wool and mohair are used to extend our supplies of new wool. The fabrics were periodically taken out of service and tested for changes in breaking strength, shrinkage, air permeability, heat transmission, thickness, and amount of deterioration. It was found that on the whole the fabric containing poor-quality new wool was more satisfactory than those with either the reused wool or mohair. The fabric containing a blend of reused wool gave the poorest performance.

A related type of investigation dealt with methods for determining the amount of wool in a fabric containing substitutes and blended fibers. Four methods studied in detail were the caustic boil, aluminum

chloride, sulfuric acid, and flotation. Six fabrics made from various known percentages of wool and cotton or wool and rayon were analyzed. All the methods except the flotation have a high degree of precision. The aluminum chloride method tends to give results that are too low by about the same amount as the sulfuric acid results are too high. The caustic-boil method is accurate if the correction factor is accurately determined. Statistical analysis of the data indicated that for routine testing duplicate samples are probably sufficient for any of the four methods.

Curtailed imports of linen goods have made it necessary that other fibers replace part or all the linen in fabrics. One such substitution has been made in dish towels. As a use-value study, tests were made of the serviceability of a dish-towel fabric containing 45 percent spun rayon, 38 percent cotton, and 17 percent linen. When the fabric was washed by a procedure including high temperatures, a bleach, and a sour, it was whiter but more deteriorated than when washed at lower temperatures without a bleach or sour. Although the tests were limited to towels of one-fiber blend, it appears likely that a high percentage of rayon is not satisfactory in fabrics that normally may be subjected to rather drastic laundering.

#### STANDARDS AND SPECIFICATIONS FOR EQUIPMENT

The establishment of price ceilings for household equipment drew attention to the need for performance standards, both for new equipment made of substitute materials and for rebuilt equipment. Government agencies concerned with protecting consumers' interests had been handicapped by the lack of established standards and simplified test methods to determine whether or not equipment met the established standard. For several years the Bureau had emphasized in its equipment work the development of performance standards and standard test procedures. In the past year this work increased, with special attention to simplified testing methods.

As an example, a simplified test procedure for household refrigerators recommended by the National Bureau of Standards as a substitute for accepted procedure in use was applied to data from previous tests on 25 refrigerators. The simplified procedure was found to give the essential data. The Bureau recommended to the refrigerators committee of the American Standards Association that the simplified procedure be adopted. The Bureau revised the test procedure for electric ranges developed by the National Household Equipment Research Committee and developed a test procedure for electric irons. These procedures were submitted to the electric range and iron committee of the American Standards Association for use in connection with developing the proposed national standard tests.

#### WORK SPACE IN KITCHENS

Housing researches toward establishing minimum requirements for working and storage space in kitchens were carried forward. Efficiency tests on another type of kitchen were added to the series of four previously tested, and data on all five types were analyzed and made available for use in the war housing program. This done, the farm-kitchen study was discontinued for the duration.

The fifth kitchen was a parallel-wall type similar to one already tested but smaller in floor area and with less working and storage space (18 inches to left of sink and 30 inches to right). While working time was slightly less, workers reported irritation and increased fatigue due to the limited work and storage spaces provided, even though the spaces allowed were more generous than those often provided in housing projects.

### SPECIAL SERVICES FOR WAR AGENCIES

The Bureau has met many requests for information on the nutritive value of foods and their relative importance in connection with our agricultural planning programs. These requests came from the War and Navy Departments, the Food Requirements Committee, the Coordinator of Inter-American Affairs, and the Board of Economic Warfare, as well as from many units in the Agricultural Marketing Administration. To increase effectiveness of this service, steps were taken to develop better means of obtaining from other agencies information on unpublished analyses of foods, particularly on dehydrated, concentrated, and otherwise processed foods.

The Bureau's basic program of compiling data on food composition was diverted in large measure to war problems relating directly to feeding military and civilian populations of the United Nations. Rations for shipment to prisoners of war were formulated at the request of the Agricultural Marketing Administration and the American Red Cross.

A quick method of calculating nutritive value of Army rations was developed, in collaboration with the War Department. The method shortens the time to one-fifth of that formerly required to appraise a particular ration.

When the sugar shortage loomed, the Bureau furnished to the Office of Price Administration figures on average consumption of sugar by families in normal conditions, and these figures were taken into consideration in establishing sugar rations. The Bureau quickly took steps to prepare recipes and directions that would help the public meet the sugar-ration situation without lowering the appetizing value of meals or hampering the home canning program. In cooperation with the Office of Price Administration publications were issued on ways to stretch sugar rations and on sugar in wartime canning. These included results of earlier Bureau researches on corn syrup, honey, cane, and sorghum syrup.

As a supplement to the War Production Board campaign for conservation and salvage of fats, educational material regarding the economical use of fats as food was prepared.

At the request of the American Red Cross, a home-made fireless cooker was developed for use in emergency feeding and canteen work. This was designed to meet the safety requirements of the National Fire Underwriters Association, with nonstrategic materials used as far as possible. Specifications and directions were prepared for use by Red Cross classes.

Specifications for all types of household equipment on the market during 1941 were compiled for the Office of Price Administration as a basis for development of programs on simplification, recommended

standards, and production curtailment. The Office of Price Administration also requested the Bureau to make a survey to determine the value of special features in major pieces of household equipment in relation to their usefulness and to the amount of strategic materials used in their construction. Prior to the issuance of the order limiting manufacture of cooking utensils, the Bureau had prepared the recommendations of the Department of Agriculture for submission to the War Production Board.

To help further the conservation of household equipment, the Bureau, through its research on efficient use and care of appliances, prepared practical directions for the use and care of household labor-saving devices, such as ranges, refrigerators, laundry equipment, vacuum cleaners, and sewing machines. These directions are being edited to be issued in cooperation with the Office of Price Administration.

Deterioration of cotton fabrics when attacked by micro-organisms, always a serious problem, became more so when textile-manufacturing equipment was taxed to the limit for war needs. All cotton fabrics, whether awnings, tents, camouflage nets, tarpaulins, or sandbag and seed-bag coverings, unless chemically treated for protection, deteriorate rapidly when out-of-doors in a dust-laden atmosphere or in direct contact with the ground. Experience in mildew research, gained by the Bureau when working as part of a cooperative group in the Department, was directed toward testing materials for the War and Navy Departments. Special emphasis was placed on methods of protecting against rotting action of mixed bacteria and fungi, such as attack fabrics used out-of-doors. Since garden soil contains approximately these same bacteria and fungi, this soil was the source of micro-organisms for tests on degreased and desized cotton duck. Nine treatments were effective when tested by the soil-inoculum method. This work is now continuing in cooperation with the Bureau of Plant Industry and the Bureau of Agricultural Chemistry and Engineering.

## PUBLICATIONS AND INFORMATION SERVICES

Because of the war, requests for Bureau of Home Economics publications increased by nearly 2,000,000 last year, reaching a total of more than 6,000,000. Radio and press services were continued and in some cases expanded to meet wartime demands.

Following is a list of new material published during the year or in press or in preparation July 1, 1942:

### POPULAR MATERIAL TYING IN WITH THE WAR EFFORT

<p>Food for growth. AWI-1, 8 pp.</p> <p>Vitamins from farm to you. AWI-2, 16 pp.</p> <p>When you eat out. AWI-5, 6 pp.</p> <p>Fight food waste in the home. AWI-3, 8 pp.</p> <p>Fight food waste in the home. Set of 10 charts, 15 by 20 inches.</p> <p>Get the good from your food. Set of 10 charts, 15 by 20 inches.</p> <p>Meat for thrifty meals. Farmers' Bull. 1908, 46 pp.</p> <p>Poultry cooking. Farmers' Bull. 1888, 33 pp.</p> <p>Recipes to match your sugar ration. Unnumbered pub., 14 pp. (In cooperation with OPA.)</p> <p>Ways to stretch sugar rations in jellies, jams, preserves. Unnumbered pub., 1 p.</p> <p>Home canning of fruits, vegetables, and meats. Revision of Farmers' Bull. 1762.</p> <p>Drying foods for victory meals. Farmers' Bull. 1918, 14 pp.</p> <p>Dried beans and peas in low-cost meals. Unnumbered folder, 8 pp.</p> <p>Dried fruits in low-cost meals. Unnumbered folder, 8 pp.</p> <p>Potatoes in low-cost meals. Unnumbered folder, 8 pp.</p> <p>Green vegetables in low-cost meals. Unnumbered folder, 8 pp.</p> <p>Root vegetables in low-cost meals. Unnumbered folder, 8 pp.</p>	<p>3 market lists for low-cost meals. Unnumbered folder, 4 pp.</p> <p>Market lists for moderate-cost and liberal meals. Unnumbered folder, 4 pp.</p> <p>Vitamin values of foods, in terms of common measures. Misc. Pub. 505, 29 pp.</p> <p>Community food preservation centers. Misc. Pub. 462, 64 pp.</p> <p>Be a victory planner in your home. Unnumbered folder, 6 pp.</p> <p>How to make your refrigerator last longer. AWI folder, 8 pp. (In cooperation with OPA.)</p> <p>How to make your washing machine last longer. AWI folder, 8 pp. (In cooperation with OPA.)</p> <p>How to make your ironing equipment last longer. AWI folder, 8 pp. (In cooperation with OPA.)</p> <p>How to make your gas or electric range last longer. AWI folder, 8 pp. (In cooperation with OPA.)</p> <p>Take care of household rubber. AWI folder, 8 pp. (In cooperation with OPA.)</p> <p>Make your rubber last. Set of 5 charts, 15 by 20 inches.</p> <p>Stain removal from fabrics, home methods. Farmers' Bull. 1474, rev., 30 pp.</p> <p>Work clothes for women. Farmers' Bull. 1905, 16 pp.</p> <p>Cotton hosiery for women. A portfolio of design. (For textile mills.)</p>
---	---

U. S. GOVERNMENT PRINTING OFFICE: 1942